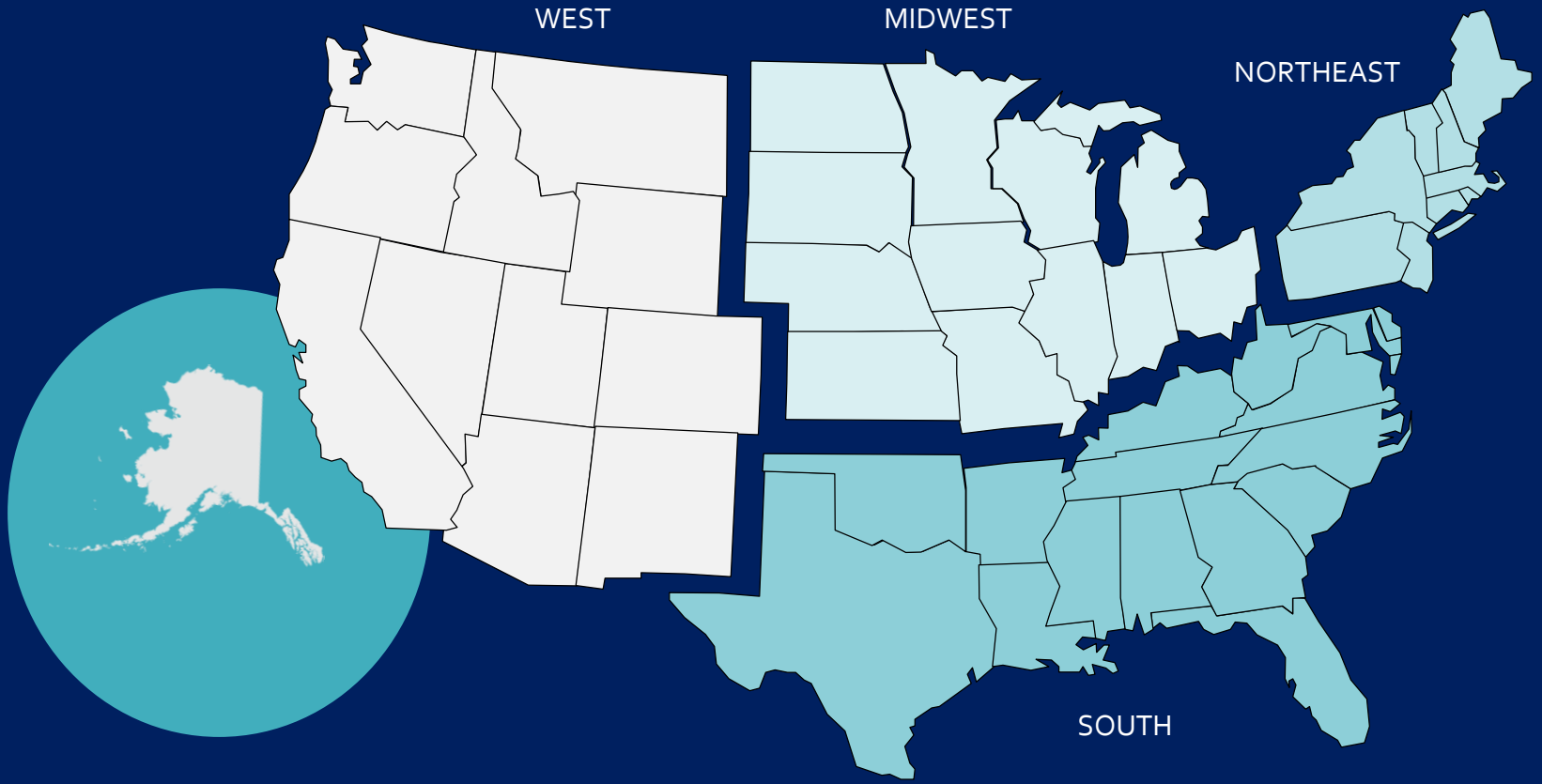


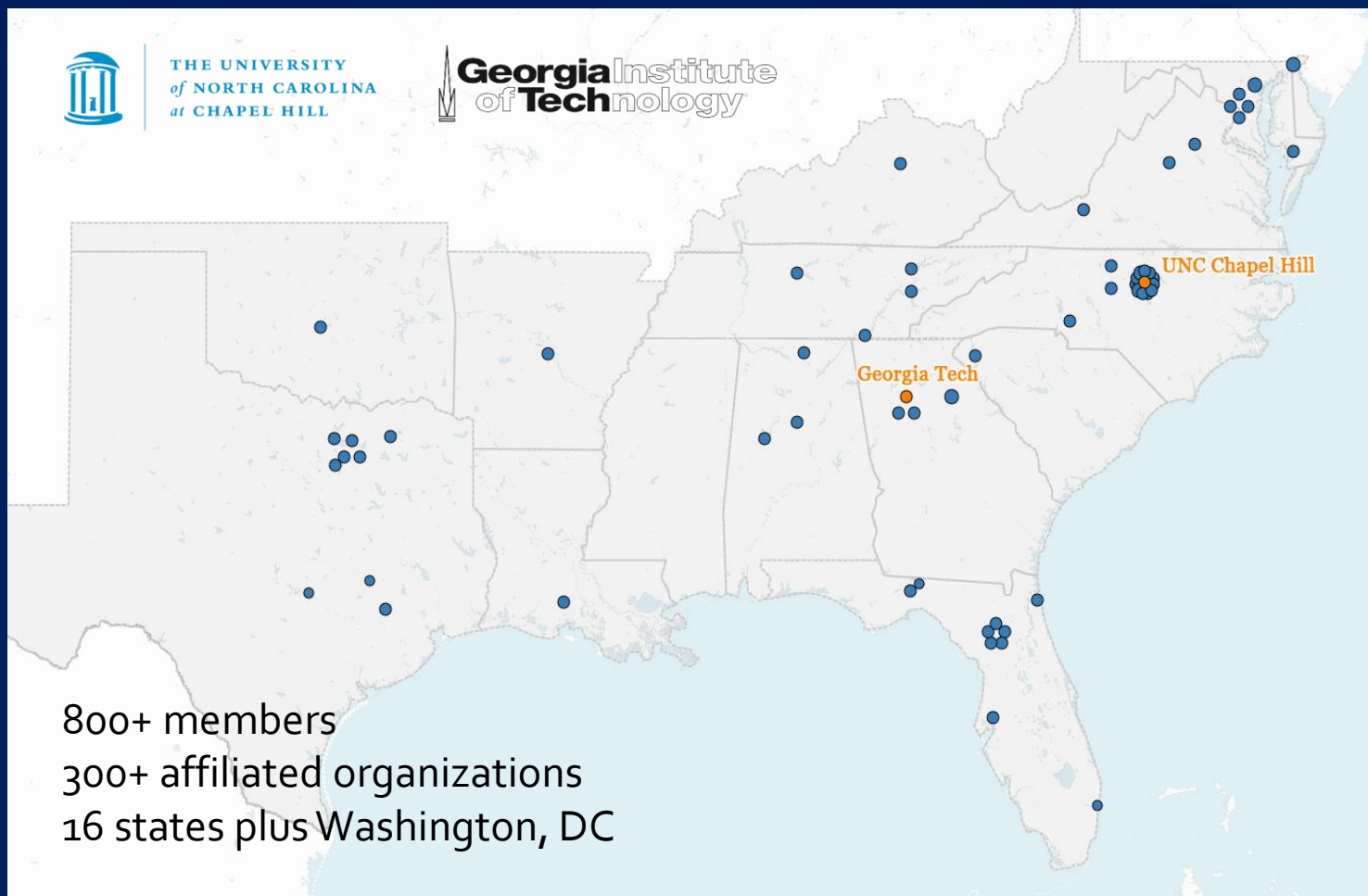
South Big Data Hub

Trans-Atlantic Symposium on Technology and Policy
for a Smart Society in Minneapolis, MN on June 19, 2017

Network of Big Data Hubs



South Big Data Innovation Hub





Grow networks of data scientists, domain scientists and practitioners

- Bridging the gap between **research and practice**
- **Sharing** data, resources and best practices



Data Science Roundtables prioritize research challenges and identify solutions in verticals.

- [Southbdhub.wordpress.com/programs/virtual-roundtables](https://southbdhub.wordpress.com/programs/virtual-roundtables)
- [Southbdhub.wordpress.com/data-science-roundtable-archive](https://southbdhub.wordpress.com/data-science-roundtable-archive)

Huddles matchmake problem holders with experts, data and resources.

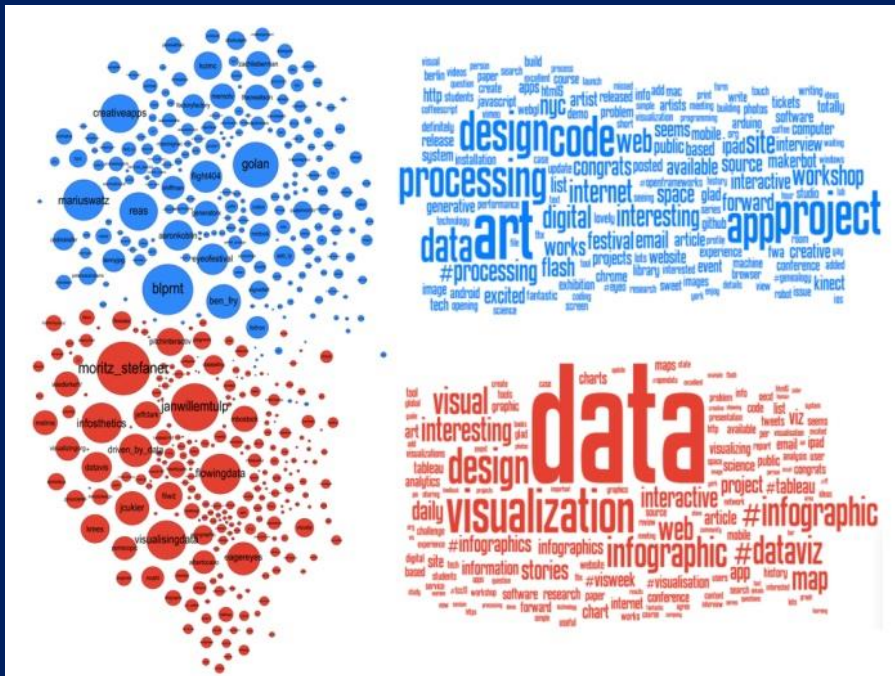
Grow Networks

Workshops Delivered

- South Big Data Hub All Hands (12/15)
- All Hub Executive Director Retreat (6/16)
- ESIP Research as Art Data Visualization (7/16)
- Congressional Luncheon Briefing with Hub delegations and House and Senate Committees (7/28/16)
- NITRD Big Data Interagency Working Group Meeting (7/2016)
- Big Data for Advanced Materials and Manufacturing (8/25/16)
- Applications of Machine Learning and Analytics for Energy, Power, Grid, and Sustainability (9/6/16)
- Data for Health Analytics & Precision Medicine (9/19-20/16)
- DataStart Workshop (9/27/16)
- Building Data Science Capacity for Impact. w/ White House (12/15/16)
- NSF Big Data Hub PI Meeting (3 /17)
- Southern Data Science Conference (4/7/17)
- Transportation Data Challenge Launch (5/2-3/17)
- IoT in Smart Cities and Campuses (5/17)
- Mobile Health Analytics for Health Disparities in the South (5/17)
- Big Data Hub Workshop at IPDPS (6/2/17)
- Microsoft Azure Training (6/8/17)
- 2017 South Hub All Hands (6/9/17)



Data Driven Storytelling: A Deep Dive into Visualization Techniques



AAAS Headquarters in
Washington, DC

July 14, 2017

8:30 AM – 4:30 PM ET

SouthandWestHubDataviz.
eventbrite.com



Science & Technology
Policy Fellowships



SOUTHBDHUB



WEST
BIG DATA
INNOVATION
HUB

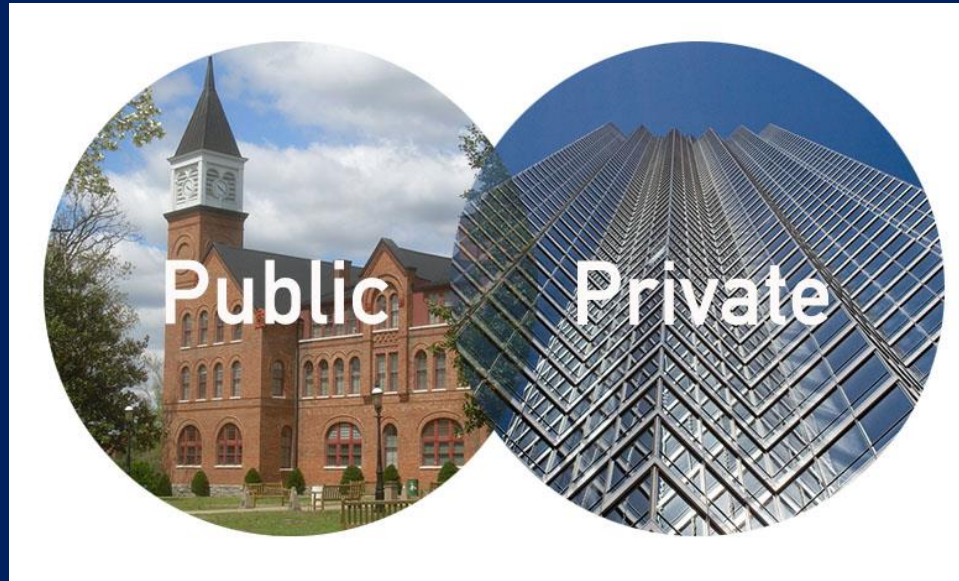
Example: Materials & Advanced Manufacturing Community



Industry and academic researchers connected to assess the current state of the data infrastructure supporting the accelerated insertion of new and advanced materials into commercial products.

Participants

Lockheed-Martin , Siemens , Pratt & Whitney, Air Force Research Lab (AFRL), ThermoCalc , Citrine Informatics (Materials Informatics), Los Alamos National Lab (LANL), Sandia National Lab (SNL), and The National Institute of Standards and Technology (NIST).



build and strengthen **partnerships**
across industry, academia, nonprofits, government

to address societal challenges,
spur economic development,
and foster a national big data ecosystem

Build Partnerships

Microsoft Azure Cloud Services Partnership

providing \$ 3M in credits across the Hubs + technical support + training



US Department of Commerce National Technical Information Service Joint Venture Partnership

for rapid deployment of expert data teams to provide public services and improve operations.

TRANSPORTATION DATA CHALLENGE

Hosted by the Regional Big Data Innovation Hubs

#BDHubs



Over past 2 years, traffic deaths have increased by 14% across the United States. In 2016, nearly 6,000 pedestrians died – the highest number in nearly two decades.

Bigdatahub.io

Building Partnerships: International



European Union Big Data
Value Association

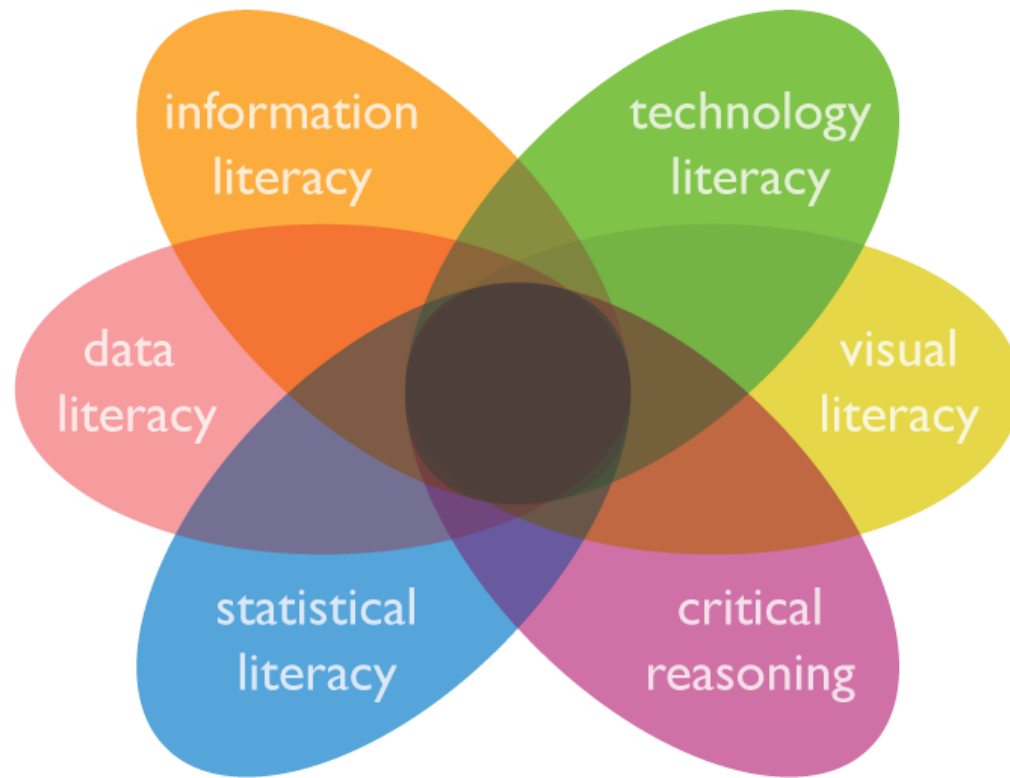


US Department of State Chinese Young Scientists Forum @ South Hub

Data Sharing & Cyberinfrastructure Working Group

Facilitating **distributed data sharing, computing, and analysis** across institutions and partners.

- Access to data (eg, Experian, Waze, UnitedHealth)
- Mapping collaborations, services, and resources and identifying needs (eg, iRods, Nat'l Data Service, XSEDE/HPC)
- 12 demos of core cyberinfrastructure components
- Working to provide access to **test bed** environments



Develop data literacy and data science capacity
through education, training, workforce development

Building Workforce: Students with Startups

Southern Startup Internship Program in Data Science

(DataStart) links talented students with tech startups in the south region.



Building Workforce: Faculty with Industry

Connecting early career faculty with industry partners through the **Program to Empower Partnerships with Industry (PEPI)** fellow exchange.



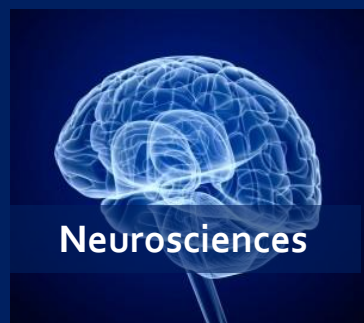
Ten faculty and research scientists from across the South including the universities (LSU, UNC, FSU, UA, Duke, GT, Texas A&M) were matched with industry partners including (GlaxoSmithKline, PhishMe, McKesson, Allscripts, Nanotechnology, Accelogic, Biogen, and UnitedHealthcare).

2016 All Hands Meeting, Spoke Nucleation

250 Participants
68 Spoke Proposals Generated

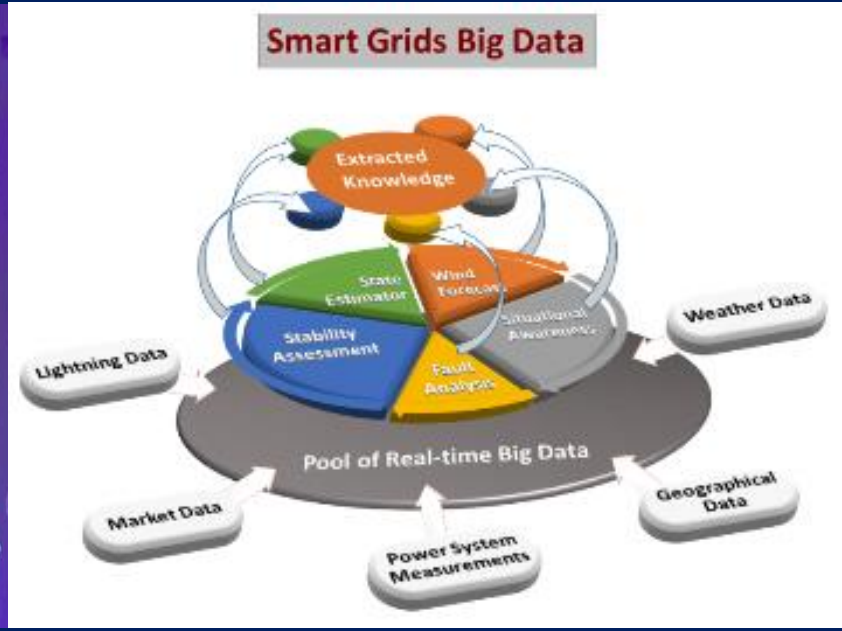
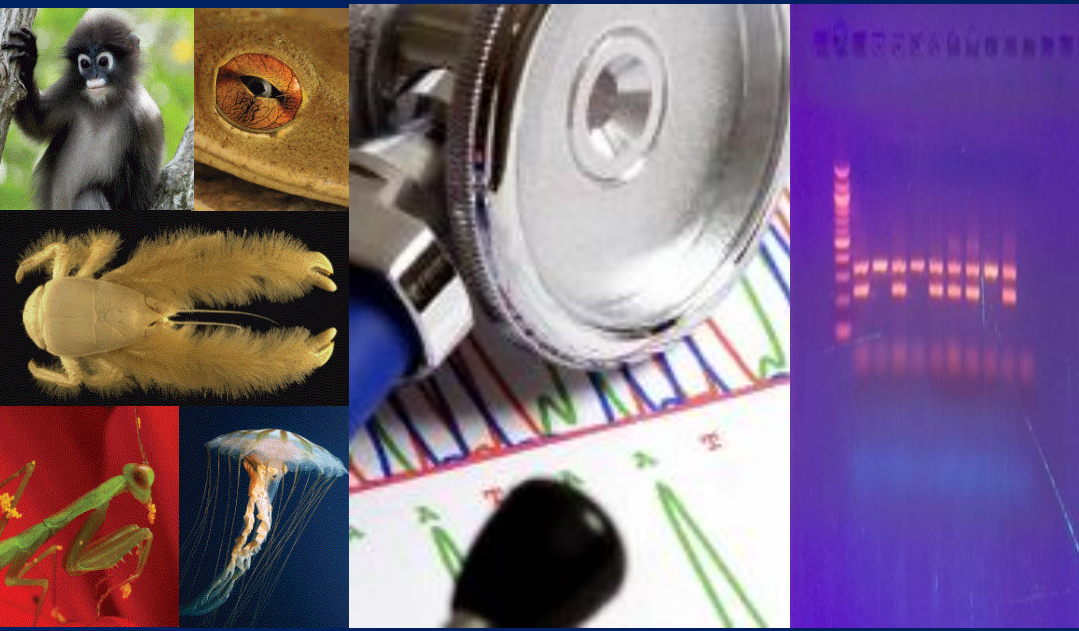


Verticals



Horizontals

- Data Sharing
- Cyberinfrastructure and Cloud Services
- Security, Privacy and Ethics
- Legal and Policy Issues
- Economic Development
- Entrepreneurship
- Data Literacy and Education
- Replicability and Reproducibility in Data Science
- Partnering with High Performance Computing resources to look at the interactions between HPC and data science.



2016 SPOKE AND PLANNING GRANTS

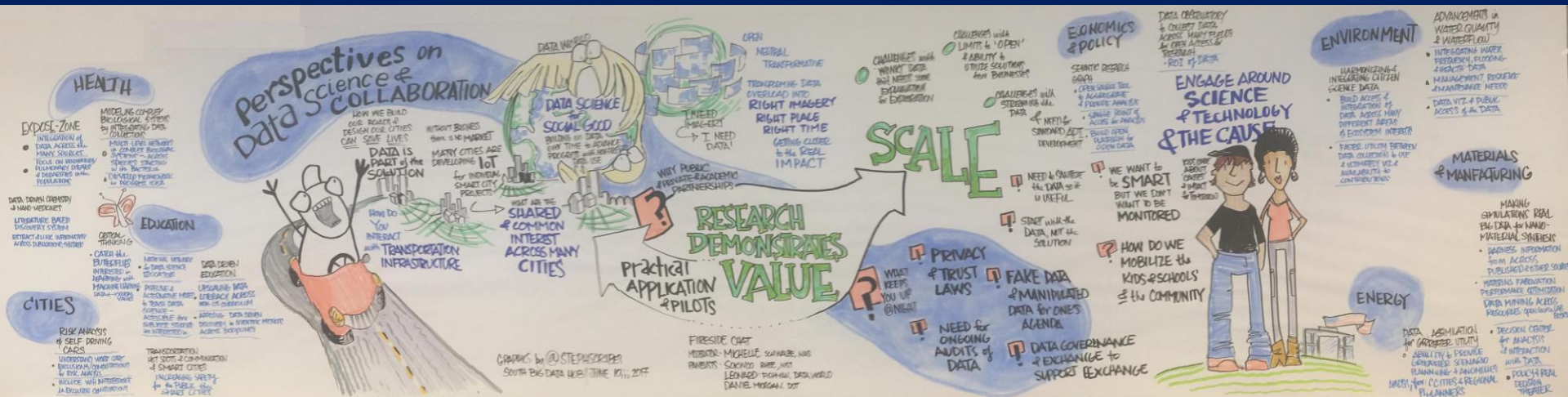
Smart Grids Big Data

Large-scale Medical Informatics for Patient Care, Coordination & Engagement

Using Big Data For Environmental Sustainability: Big Data + AI Technology

Rare Disease Observatory (planning grant)

2017 South Hub All Hands Meeting



2017 NSF Solicitation

Big Data Regional Innovation Hubs: Establishing Spokes to Advance Big Data Applications

<https://www.nsf.gov/pubs/2017/nsf17546/nsf17546.htm>

South Big Data Hub co-Executive Directors

Dr. Lea Shanley, UNC-Chapel Hill

lshanley@renci.org

Dr. Renata Rawlings-Goss, GA Tech

rrawlings.goss@gatech.edu

Learn more

info@southbdhub.org

SouthBDHub.org

[@Southbigdatahub](https://www.instagram.com/Southbigdatahub)

